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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,283	12/12/2001	Theodore H. Hermanson	01-MV-057 (52027)	8911

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EXAMINER

CHEN, PO WEI

ART UNIT PAPER NUMBER

2676

8

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,283

Applicant(s)

HERMANSON, THEODORE H.

Examiner

Po-Wei (Dennis) Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

In response to an Amendment received on July 1, 2004. This action is non-final.

Claims 1-46 are pending in this application. Claims 1, 11, 21, 29, 37 and 42 are independent claims.

The present title of the invention is "Method and system of continuously scaling video images".

Election/Restrictions

1. After careful consideration, examiner determines the examination of the application can be made without serious burden. The requirement of restrictions has been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 11, 21, 29, 37 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. While claim recites "smallest integer increment on the x/y axis", the limitation is unclear on where the increment is being applied. Examiner suggests replacing "x/y axis" with "video source values of pixel width and pixel height" for clarification and consistency with other limitations in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein) in view of Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272) and Wu (US 6,437,787).

6. Regarding claims 1-3, Okuno discloses image display apparatus comprising:

Displaying video data generated as a video data stream on a video display at a predetermined aspect ratio; Obtaining video source values of pixel width and pixel height to be displayed (line 52 of column 6 to line 21 of column 7);

Okuno does not disclose determining the smallest integer increment on the x/y axis that will maintain the desired aspect ratio. Tsao discloses an image processing utilizing the method (lines 13-20 and 49-61 of column 2 and line 34 of column 7 to line 65 of column 7; smallest scaling number of pixels (integer) on pixel width and height is calculated for the maintenance of predetermined aspect ratio). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Tsao to provide a more accurate image conversion after scaling (lines 7-20 of column 2, Tsao).

Combination of Okuno and Tsao does not disclose using a greatest common denominator to reduce the ratio to the lowest integer. Segman discloses an image scaling process utilizing the method (lines 29-43 of column 1 and lines 12-42 of column 6). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Segman to provide a high quality and closely representative of original image after scaling (lines 37-39 of column 3, Segman).

Combination of Okuno, Tsao and Segman does not disclose the video source is obtained during playback or in a pause mode; generation a video data stream from an optical disc player; generating a video data stream as a High Definition Television (HDTV) signal. Wu discloses a

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display master control utilizing the video source for resizing (line 34 of column 4 to line 39 of column 5, lines 20-28 of column 6 and line 37 of column 8 to line 16 of column 9; DVD corresponds to optical disc player). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Wu to provide flexibility to process range of possible input and output formats (lines 16-39 of column 5, Wu).

7. Regarding claims 11-13, statements presented above, with respect to claims 1-3 are incorporated herein. Furthermore, Okuno discloses image display apparatus comprising:

If the area of video source data does not correspond one-to-one with the area of the destination region, scaling the video source data in a graphics processor unit (lines 52 of column 6 to line 21 of column 7 and Fig. 1; element 9 of Fig. 1 corresponds to graphics processor unit).

8. Claims 4-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272) and Wu (US 6,437,787) as applied to claims 1 and 11 above, and further in view of Sakai (US 6,185,476).

9. Regarding claims 4-6, Okuno does not disclose manipulating a joystick for initiating a zoom function to scale images of the video display; moving the joystick up to increase zoom magnification by a predetermined number of pixels and moving the joystick down to decrease zoom magnification by a predetermined number of pixels until fully zoomed out; manipulating a second joystick to vary the x/y position of the zoomed region in a continuous fashion. Sakai discloses a design system utilizing the device (line 38 of column 71 to line 59 of column 72 and lines 14-22 of column 74 and Fig. 37-41). It would have been obvious to one of ordinary skill in

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the art to utilize the teaching of Sakai to provide enhanced efficiency in the design system by utilizing the joystick for viewing design details (lines 9-13 of column 4 of Sakai).

10. Regarding claims 14-16, statements presented above, with respect to claims 4-6 are incorporated herein.

11. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272) and Wu (US 6,437,787) as applied to claims 1 and 11 above, and further in view of Togo et al. (US 6,585,594; refer to as Togo).

12. Regarding claim 7, Okuno does not disclose displaying the video data on a video display that is operatively connected to a video game box containing an optical disc player, a central processing unit, a graphics processor unit, and game port. Togo discloses a display control program utilizing the device (line 57 of column 3 to line 59 of column 4 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Togo to provide a faster display of image desired in a proper display size (lines 46 of column 1 to line 26 of column 2, Togo).

13. Regarding claim 17, statements presented above, with respect to claim 7 are incorporated herein.

14. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272) and Wu (US 6,437,787) as applied to claims 1 and 11 above, and further in view of Tinker et al. (US 6,456,329; refer to as Tinker herein).

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15. Regarding claim 8, Okuno does not disclose processing the video data such that a zoomed rectangle retains its perspective in relation to the video source values to minimize jitter/"bob" effects. Tinker discloses a de-interlacing video data method utilizing the process (Abstract and lines 28-41 of column 5). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Tinker to provide simplified computation and better image for image conversion (lines 18-45 of column 2, Tinker).

16. Regarding claim 18, statements presented above, with respect to claim 8 are incorporated herein.

17. Claims 9-10 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272) and Wu (US 6,437,787) as applied to claims 1 and 11 above, and further in view of Nielsen et al. (US 5,960,126; refer to as Nielsen herein).

18. Regarding claims 9-10, Okuno does not disclose wherein if zooming out an image on the video display, if a current pixel width and height and width and height increment to be added are less than the maximum width and height that can be displayed, then calculating a new width and height as the current pixel width and height and width and height increment to be displayed; wherein if zooming in an image on the video display, if a current pixel width and height and width and height increment to be added are greater than the minimum width and height that can be displayed, then calculating a new width and height as the current pixel width and height and width and height increment to be displayed. Faulhaber discloses image modification method for different formats utilizing the method (line 45 of column 9 to line 37 of column 12; it is noted that the maximum and minimum image width and height are being used to determine the correct

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modification of the image size for proper displaying). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Faulhaber to provide optimum displaying of source images having a desired size and aspect ration (line 58 of column 3 to line 5 of column 4, Faulhaber).

The combination of Okuno and Faulhaber does not disclose and fixing an x and y position as fixed x and y center points minus any respective new width and height divided by two. Nielson discloses a image scaling system utilizing the method (lines 25-51 of column 6). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Nielson to provide a accurate overall content to be displayed on a scaled display size (liens 27-33 of column 2, Nielson).

19. Regarding claims 19-20, statements presented above, with respect to claims 9-10 are incorporated herein.

20. Claims 21-24, 29-32, 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein) in view of Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272), Wu (US 6,437,787) and Sakai (US 6,185,476).

21. Regarding claims 21-24 and 37-41, statements presented above, with respect to claims 1-6 are incorporated herein.

22. Regarding claims 29-32 and 42-46 statements presented above, with respect to claims 11-16 are incorporated herein.

23. Claims 25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao

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herein), Segman (US 6,178,272), Wu (US 6,437,787) and Sakai (US 6,185,476) as applied to claims 21, 29 above, and further in view of Togo et al. (US 6,585,594; refer to as Togo).

24. Regarding claim 25, statements presented above, with respect to claim 7 are incorporated herein.

25. Regarding claim 33, statements presented above, with respect to claim 17 are incorporated herein.

26. Claims 26 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272), Wu (US 6,437,787) and Sakai (US 6,185,476) as applied to claims 21 and 29 above, and further in view of Tinker et al. (US 6,456,329; refer to as Tinker herein).

27. Regarding claim 26, statements presented above, with respect to claim 8 are incorporated herein.

28. Regarding claim 34, statements presented above, with respect to claim 18 are incorporated herein.

29. Claims 27-28 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. (US 6,407,723; refer to as Okuno herein), Tsao et al. (US 5,453,846; refer to as Tsao herein), Segman (US 6,178,272), Wu (US 6,437,787) and Sakai (US 6,185,476) as applied to claims 21 and 29 above, and further in view of Nielsen et al. (US 5,960,126; refer to as Nielsen herein).

30. Regarding claims 27-28, statements presented above, with respect to claims 9-10 are incorporated herein.

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31. Regarding claims 35-36, statements presented above, with respect to claims 19-20 are incorporated herein.

Conclusion

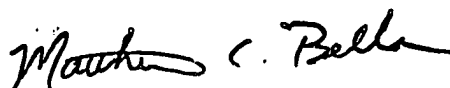
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Po-Wei (Dennis) Chen whose telephone number is (703) 305-8365. The examiner can normally be reached on Monday-Thursday from 8:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C Bella can be reached on (703) 308-6829. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Po-Wei (Dennis) Chen
Examiner
Art Unit 2676

Po-Wei (Dennis) Chen
September 16, 2004



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